

A BUFFER COMPOSITION AND METHOD FOR HYBRIDIZATION OF  
MICROARRAYS ON ADSORBED POLYMER SILICEOUS SURFACES

ABSTRACT OF THE INVENTION

A buffer composition, method and kit for hybridizing microarrays of nucleic  
5 acids bound to an adsorbed polymer surface of a siliceous substrate provide an  
envelope of conditions to hybridize nucleic acid targets, while preserving the  
intactness of the adsorbed polymer surface of the array. The buffer composition  
comprises a non-chelating buffering agent, a pH within a range of pH 6.4 and 7.5, a  
monovalent cation having a monovalent cation concentration that ranges from about  
10 0.01 M to about 2.0 M, and optionally relatively lower concentrations of a chelating  
agent and an ionic surfactant. The total cation concentration of the buffer  
composition ranges from about 0.02 M to about 2.0 M. The method comprises  
incubating the targets with the microarray in the buffer composition at a temperature  
between about 55°C and 70°C.